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| APPLICATION NO.                                   | FILING DATE     | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO. |
|---|-----------------|----------------------|-----------------------------|------------------|
| 09/852,855  | 05/10/2001      | Raymond A. Berard    | 14060/198355(IRC289)        | 5678             |
| 23370   | 7590 04/07/2005 |                      | EXAMINER                    |                  |
| JOHN S. PRATT, ESQ                                |                 |                      | WYROZEBSKI LEE, KATARZYNA I |                  |
| KILPATRICK STOCKTON, LLP<br>1100 PEACHTREE STREET |                 | ART UNIT             | PAPER NUMBER                |                  |
| ATLANTA,  | GA 30309        | 1714                 |                             |                  |
|   |                 |                      | DATE MAIL ED: 04/07/2004    |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   |  |  | 1.10   |  |  |  |
|---|--|--|--|--|--|--|
| <u> </u>                                      |  | Application No.  | Applicant(s)   |  |  |  |
| Office Action Summary                         |  | 09/852,855   | BERARD, RAYMOND A.   |  |  |  |
|   |  | Examiner   | Art Unit   |  |  |  |
|   | ·  | Katarzyna Wyrozebski   | 1714   |  |  |  |
| Period fo                                     | The MAILING DATE of this communication ap<br>or Reply  | pears on the cover sheet with the o  | correspondence address   |  |  |  |
| THE - Exte after - If the - If NC - Failt Any | MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period ure to reply within the set or extended period for reply will, by statuting received by the Office later than three months after the mailing delight processes. See 37 CFR 1.704(b). | 136(a). In no event, however, may a reply be tirely within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE | mely filed  ys will be considered timely.  In the mailing date of this communication.  ED (35 U.S.C. § 133). |  |  |  |
| Status  |  |  |  |  |  |  |
| 1)⊠   | Responsive to communication(s) filed on 15 M   | March 2005   |  |  |  |  |
| •   | This action is <b>FINAL</b> . 2b) ☐ This action is non-final.  |  |  |  |  |  |
| 3)□   | <del>_</del>   |  |  |  |  |  |
| ·   | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |  |  |  |  |  |
| Disposit                                      | ion of Claims  |  |  |  |  |  |
| 5)□<br>6)⊠<br>7)□                             | Claim(s) <u>1-13 and 15-20</u> is/are pending in the 4a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) <u>1-13, 15-20</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or  | awn from consideration.  |  |  |  |  |
| Applicat                                      | ion Papers   |  |  |  |  |  |
| 9)[   | The specification is objected to by the Examine  | er.  |  |  |  |  |
| 10)   | The drawing(s) filed on is/are: a) acc   | cepted or b) objected to by the  | Examiner.  |  |  |  |
|   | Applicant may not request that any objection to the  | drawing(s) be held in abeyance. Se   | e 37 CFR 1.85(a).  |  |  |  |
| _   | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |  |  |  |  |  |
| 11)   | The oath or declaration is objected to by the E  | xaminer. Note the attached Office  | Action or form PTO-152.  |  |  |  |
| Priority (                                    | under 35 U.S.C. § 119  |  |  |  |  |  |
| a)i   | Acknowledgment is made of a claim for foreign  All b) Some * c) None of:  1. Certified copies of the priority document  2. Certified copies of the priority document  3. Copies of the certified copies of the priority document  application from the International Burea  See the attached detailed Office action for a list   | ts have been received. ts have been received in Applicat prity documents have been receive tu (PCT Rule 17.2(a)).  | ion No ed in this National Stage   |  |  |  |
|   |  |  |  |  |  |  |
| Attachmen                                     | t(s)   |  |  |  |  |  |
|   | e of References Cited (PTO-892)  | 4) Interview Summary   |  |  |  |  |
| 3) 🔲 Infori                                   | e of Draftsperson's Patent Drawing Review (PTO-948)<br>mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>r No(s)/Mail Date   | Paper No(s)/Mail D  5) Notice of Informal F  6) Other:   | ate Patent Application (PTO-152)   |  |  |  |

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In view of applicants amendment filed on 1/18/2005 and supplemental declaration submitted on 3/11/05 following final office action is necessitated,

### Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-13, 15-20 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specification of the present invention enables applicants only for temperatures of 130-155°C. Statement of less than 155°C encompasses temperature outside of the range taught by the applicants.

Time of less than 45 minutes is also not in the specification. Claim 1 and newly added claims 18-20 contain new matter limitations.

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### Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-11, 13, 15-16, 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Yang (US 6,036,726).

The discussion of the disclosure of the prior art of YANG from paragraph 2 of the office action dated 7/15/2004 is incorporated here by reference.

## Claim Rejections - 35 USC § 103

- 5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
- 6. Claims 10, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 6,036,726) in view of Meyer (US 4,334,056).

The discussion of the disclosure of the prior art of YANG and MEYER from paragraphs 2 and 4 of the office action dated 7/15/2004 is incorporated here by reference.

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7. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 6,036,726) in view of Booij (US 5,840,773).

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The discussion of the disclosure of the prior art of YANG and BOOIJ from paragraphs 2 and 5 of the office action dated 7/15/2004 is incorporated here by reference.

8. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yang (US 6,036,726) in view of Scott (US 2,742,440).

The discussion of the disclosure of the prior art of YANG and SCOTT from paragraphs 2 and 6 of the office action dated 7/15/2004 is incorporated here by reference.

#### **Declaration**

- 9. Applicant's declaration although very insightful provides information about properties not previously disclosed or described by the specification. Applicants declaration is not commensurate with the scope of the invention and it is not clear how such declaration would aid in process of overcoming prior art of record.
- 10. In the amendment and response dated the applicants argued following:
- a) The examples of the prior art of YANG (As the examiner apparently admits) does not teach the elements of the present invention.

With respect to the above argument, if the applicants read carefully examiner's response, the only thing examiner stated is that the disclosure of the prior art can not be limited to the examples alone, but it has to be considered as a whole. This is not an admission to anything.

b) The examiner makes it clear that there is no single embodiment that teaches applicants invention.

The prior art of YANG is one big embodiment.

c) The prior art of YANG is not an anticipation of the present invention since examiner picks and chooses among different ranges, the examiner has moved from anticipation into obviousness and should make her rejection on that basis.

With respect to the above argument, there isn't much of picking and choosing that the examiner has to do. The prior art of YANG clearly discloses ethanol/water solvent system (claim 8 of the present invention). The article reclaimed is carpet, which is a wall covering and it contains nylon 6,6 (claims 2 and 3 of the present invention. The nylon of YANG is dissolved in solvent system at a temperature of 140-220°C, which is within applicants range. In fact the prior art of YANG discloses specific temperature of 140°C as one that is utilized in dissolution step. Applicant's recitation of time it takes to dissolve nylon waste product is rejected as a new matter, since the examiner was not able to find any recitation of dissolution time in the specification, nor did the applicants provide the examiner with information regarding the support for the above limitation.

d) The prior art of YANG discloses two very wide pressure ranges.

With respect to the above argument, the pressure range is not a subject or limitation in the present invention. The examiner would like to add the pressures of YANG (up to 300 psig) although wide also encompass the pressures of the present invention. Applicants' pressure limitation is in a range of 250-600 psig which is not that narrow either. The pressure of 250 psig and 300 psig is specifically named in the disclosure of YANG.

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e) There is no particular teaching of dissolution time in YANG. The examiner persives overlap in ranges as anticipation.

With respect to the above argument, applicants time limitation is subject to new matter rejection, unless the applicants provide specific part of the specification that would support it.

With respect to the argument of overlap and anticipation the examiner would like to point out one thing. The prior art of YANG utilizes the same solvent system, which is ethanol and water, wherein the weight of the alcohol was 60/40; 70/30; 80/20 or 90/10. The 80/20 combination is specifically taught and disclosed in YANG, therefore temperatures and pressures required to bring such nylon waste to dissolution have to overlap to some degree as well as should the time in which the nylon has to be dissolved,. To further support that, the prior art of YANG clearly and specifically names 30 minutes and 5 minutes (See col. 13).

f) There is no teaching in YANG that the increased pressure is related to decreased dissolution time. The pressure in present is external whereas YANG utilizes inert gas.

With respect to the above argument, the source of the increased pressure is not a limitation of the independent claim. Therefore particular argument is not commensurate with the scope of the claims. In addition, independent claims of the present invention do not call for step that would relate pressure increase with the dissolution of nylon scrap.

With respect to the decreased dissolution times as a result of increased pressure, the examiner requests that applicants elaborate on applicant's statement, since specification does not fully explain this phenomenon.

g) In the rejection of YANG in view of MEYER, the prior art of MEYER does not cure the efficiencies of YANG.

With respect to the above argument, the prior art of MEYER was utilized to reinforce further what the prior art of YANG disclosed, mainly the temperatures of nylon dissolutions in that same solvent to provide for nylon powder.

h) The prior art of MEYER does not teach the combination of low dissolution temperatures with elevated pressure.

With respect to the above arguments the independent claims of the present invention do not call for any type of pressure nor do they disclose the relation between the low dissolution temperature and elevated pressure.

i) The prior art of MEYER is not directed to dissolving nylon.

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With respect to the above argument, the prior art of MEYER discloses process that dissolves nylon in proper solvents and the precipitates it to obtain partilculates. The only difference is that the nylon of Meyers is not recycled nylon but new one, however the source of nylon will not affect the dissolution properties. This process is expected to work equally on both new and recycled nylon polymers. Both disclosures of YANG and MEYER dissolve the polyamide polymers.

The reason why the prior art of MEYER was utilized, is that of the temperature range, that is otherwise taught by YANG. Regardless is the colorants of Yang dissolve or not, the same temperatures are expected to work for both nylons.

j) The applicants argued that the nylons of MEYERS would not react with polyundecanoic acid amide and/or polylauryllactam and it would destroy the purpose of the applicants invention as well as the purpose of the prior art of YANG.

The examiner is clear with respect to the point of this argument. Neither prior art of MEYERS or YANG want to degrade nylon, so the fact the nylon does not react with acid or lactam above is actually a good thing. The present invention also does not teach the degradation of nylon. The argument is also not commensurate with the scope of the claims.

k) One of ordinary skill in the art would not be motivated to combine the teachings since polymers of the two disclosures are different.

Polyamide of YANG is nylon 6,6. The polyamide of MEYERS is formed from adipic acids and hexamethylene diamine. The two monomers disclosed in MEYERS form nylon 6-6.

l) The prior art of BOOIJ does not disclose inventive step of low temperature dissolution with high pressure.

With respect to the above argument, the pressure of the present invention is not a subject matter of independent claims. Furthermore the two features are disclosed by YANG. BOOIJ was utilized just like MEYERS for the purpose of narrower temperature range for the dissolution of polyamides.

m) The applicants are confused by the restatement of this rejections since the examiner has not provided any explanation as to what changes caused the reversal of statements in advisory action.

The examiner has a discretion of reinstating all the rejections deemed applicable against present claims. The prior art of BOOIJ was restated because it teaches temperature ranges and the rejection will not be withdrawn.

With respect to the clarification as to what rejection the examiner is making, it is YANG in view of BOOIJ. It is also examiner's position that the applicants are not entitled to second nonfinal office action. The rejection of YANG in view of BOOIJ was a non-final office action and the applicants had opportunity to to provide a meaningful response to the rejection in statutory time as defined by the MPEP.

n) The prior art of STOTT fails to teach deficiencies of YAN, since STOTT does not teach the dissolution temperature of above 160°C.

With respect to the above argument, the prior art of STOTT was utilized to provide limitation of dependent claim, which limitation is presence of the inert gas. IT was not utilized for the recitation of the temperature range.

o) Neither STOTT or YANG teach that increased pressures and lower dissolution temperature can be used to achieve shorter dissolution times.

The above arugment is not commensurate with the scope of the claims, since such situation is not evident from recitation of temperatures and time that is currently rejected as a new matter.

p) Absent is some disclosure effectively linking the use of elevated pressure to the ability to decrease dissolution temperature while maintaining dissolution times.

Are the applicants trying to minimize the temperature or the time? Since previously applicants argued that it is the time that is being shortened. In any event, such relationship between pressure, temperature and time is not evident in the claims.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner

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